

REMARKS/ARGUMENTS

In the pending Office Action mailed January 26, 2007, the Examiner rejected claims 23, 24, 26, 27, and 29-36 under 35 U.S.C. § 103(a) as being unpatentable over Kitamura (U.S. Patent No. 6,854,034) in view of Takahashi (U.S. Patent No. 6,282,197). Claim 28 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kitamura and Takahashi, and further in view of Napolitano (U.S. Patent No. 6,301,605). The independent claims (comprising claims 23, 29, and 30) have been amended to define over the cited references. New claims 37-45 have been added and are supported by the specification as originally filed. No new matter has been added. Further examination and reconsideration of the application, as amended, are requested.

The claimed invention relates to a storage system in which an array of storage media comprising logical disks are connected over data paths via a network to I/O ports in accordance with data rate capability of the data paths, as determined from communication speed information of a configuration table. All of the independent claims, comprising claims 23, 29, and 30 as amended, recite that the configuration table identifies the logical disks for connection with the I/O ports.

In the Office Action, the Examiner acknowledged that the Kitamura patent does not describe using a configuration table to determine data path information and provide a desired quality of service. The Examiner cited Takahashi for including a storage unit 18 having a route table 21 and a bandwidth management table 22 that store data path information to select a path based on calculated bandwidth values.

Applicants assert that there is no *prima facie* case for obviousness over the proposed combination of Kitamura and Takahashi with respect to the amended claims.

In accordance with M.P.E.P. § 2143, to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success for the modification or combination; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The first requirement under M.P.E.P. § 2143 is lacking in the proposed combination. There is no suggestion or motivation for combining Kitamura and Takahashi, because Kitamura relates to assigning storage systems to computers (see col. 2, lines 1-5), whereas Takahashi relates to ATM switches (col. 5, lines 23-54) for connecting subscriber lines 31 to relay lines 32 that are coupled to other ATM switches (see Fig. 1, col. 9, lines 21-34). Therefore, the systems are concerned with different issues, and there would be no reason to combine Kitamura and Takahashi.

There is no reasonable expectation of success for the proposed combination (the second criterion required under M.P.E.P. § 2143 for obviousness), because Kitamura and Takahashi involve different types of connections and could not be successfully combined: Kitamura connects storage systems to computers for data access (col. 2, lines 25-34), whereas Takahashi connects terminals at subscriber lines to other switches via relay lines for purposes of propagating messages (col. 9, lines 51-54).

For the last requirement under M.P.E.P. § 2143 for *prima facie* obviousness, even if Kitamura and Takahashi could be combined, all the claim limitations would not be met. All of the independent claims contain limitations that recite a configuration table that identifies the logical disks for connection with the I/O ports, and selection of a data path between logical disks and I/O ports determined from communication speed information of such a table.

As conceded by the Examiner, Kitamura does not utilize a configuration table to determine data path information. The Takahashi route table 21 and bandwidth table 22 cited by the Examiner do not include information that identifies logical disks for connection with I/O ports. Takahashi is not concerned with connecting logical disks and contains no such information in either table; Takahashi is only concerned with connecting subscriber lines to relay lines and says nothing about connecting logical disks. Therefore, even if Kitamura and Takahashi could be combined, they would not provide all the limitations of the independent claims. At the least, the combination would not have a configuration table that identifies the logical disks for connection with the I/O ports, and would not select a data path between logical disks and I/O ports determined from communication speed information of the configuration table.

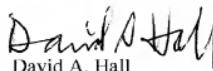
Thus, there is no *prima facie* case for obviousness of the amended independent claims 23, 29, and 30 in view of the cited references. The dependent claims rejected over Kitamura and Takahashi (claims 24, 26, 27, 31-45) are likewise patentable, for at least the reasons described above. Moreover, these dependent claims contain additional limitations that are not provided by any combination of the cited references, including Kitamura and Takahashi, and these claims also are patentable. Claim 28 is not rendered obvious over the combination of Kitamura, Takahashi, and Napolitano, as Napolitano does not make up for the deficiencies of Kitamura and Takahashi as described above.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,


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